



April 19, 2019

-Docket No. E-2, SUB 1197-

-Docket No. E-7, SUB 1195-

M. Lynn Jarvis

Chief Clerk

North Carolina Utilities Commission

4325 Mail Service Center

Raleigh, NC 27699-4300

RE: Greenlots' Comments in Support of Duke's Proposed Electric Transportation Pilot

Dear Chief Clerk Jarvis,

Greenlots submits these comments to the North Carolina Utilities Commission ("the Commission") in support of Duke Energy Progress, LLC's and Duke Energy Carolinas, LLC's (collectively, "the Company" or "Duke") proposed Electric Transportation Pilot Program ("the program") filed in Docket No. E-2, SUB 1197 and Docket No. E-7, SUB 1195 on March 29, 2019.

Greenlots is a leading provider of electric vehicle ("EV") charging software and services committed to accelerating transportation electrification in North Carolina. The Greenlots network supports a significant percentage of the DC fast charging infrastructure in North America, and an increasing percentage of the Level 2 infrastructure. Greenlots' smart charging solutions are built around an open standards-based focus on future-proofing while helping site hosts, utilities, and grid operators manage dynamic EV charging loads and respond to local and system conditions.

Transportation electrification stands to bring a host of benefits to North Carolina and society at large. These include economic development, cost savings, environmental, human health, energy security, and grid resiliency benefits. In fact, if one looks only at the cost savings benefits from reduced electric bills and reduced vehicle operating costs, by 2050 North Carolina will realize cumulative net benefits from transportation electrification that will exceed \$6.9 billion state-wide under a moderate EV adoption trajectory assumed by the U.S. Energy Information Administration.¹ This figure increases to \$66.1 billion under an EV adoption trajectory that reduces light-duty greenhouse gas emissions by 70-80% from 2018 levels by 2050.²

These figures help illustrate that transportation electrification represents likely the single greatest opportunity to increase and optimize the utilization of the electric grid to the benefit of all ratepayers. These benefits will not happen automatically, however, and will require thoughtful and deliberate planning and programs to realize, especially if the state wishes to

¹ MJB&A, "Plug-in Electric Vehicle Cost-Benefit Analysis: North Carolina", June 2018, p. ii-iii. Available at: <https://mjbradley.com/sites/default/files/NC%20PEV%20CB%20Analysis%20FINAL.pdf>

² I.d.

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maximize the value presented by this opportunity. Duke's interest in addressing significant barriers to widespread transportation electrification in North Carolina, including a lack of accessible charging infrastructure, a lack of consumer awareness, and high upfront infrastructure costs, is therefore both appropriate and necessary.

Duke's proposed pilot programs represent a portfolio of modest targeted offerings to gain learnings to accelerate transportation electrification that leverages the Company's core competencies and ability to help support and accelerate the market to the benefit of all utility customers. The programs are effectively designed to support consumers in realizing the benefits of EVs, efficiently integrate EV load into the grid, and reduce persistent barriers to EV adoption.

The proposed Residential EV Charging Program and Fleet EV Charging Program both incentivize the installation of smart, networked EV chargers to support EV drivers while providing for better integration of electric vehicle charging loads into the grid through utility management of home charging during defined hours and utilizing time-of-use rates. This will result in environmental benefits, economic benefits and grid utilization benefits that can ultimately benefit all ratepayers while accelerating the market for electric vehicles and charging products and services. Additionally, the Multi-Family Dwelling Charging Station Program will address uniquely challenging and enduring barriers to EV adoption that exist in this market segment through the installation, operation and maintenance of 160 Level 2 chargers by Duke.

In providing financial support for the purchase of approximately 85 electric school buses and providing supporting charging infrastructure, and providing approximately 60 transit bus charging stations, the EV School Bus Charging Station Program and the EV Transit Bus Charging Station Program will help address equitable access to electric transportation and bring the benefits of electric transportation to the state's schoolchildren. Additionally, the EV school bus program will evaluate the charging characteristics and usage patterns of electric school buses and test bidirectional power flow and the potential to use their batteries during times of high electric demand or during disaster recovery to the benefit of the grid.

Finally, and of critical importance, the Public L2 Charging Station Program and the Fast Charging Program will develop a foundational, beginning level of public charging infrastructure throughout the state, installing up to 120 public DC fast chargers and 160 Level 2 chargers, addressing one of the most significant barriers to electric vehicle adoption and beginning to fill critical market gaps being left by the private sector. Indeed, the current lack of such public charging infrastructure is effectively a market failure. This proposed program will take essential steps towards accelerating this market, supporting EV drivers and consumer EV purchase decisions, while also providing undervalued maintenance and reliability benefits to this infrastructure via Duke's stewardship and operation.

This portfolio of pilot programs aligns with the state's climate and greenhouse gas reduction goals as articulated in Governor Cooper's October 29, 2018 Executive Order No. 80, and together

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are an essential and meaningful step to help support and achieve the Executive Order's targets. Indeed, moving swiftly and decisively will be critical to put North Carolina on track towards attainment of these goals.

For the above reasons, Greenlots supports and respectfully requests that the Commission approve Duke's proposed electric transportation pilot programs. We look forward to continued engagement in efforts supporting transportation electrification in North Carolina, and we thank the Commission for consideration of these comments.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Thomas Ashley', with a stylized, cursive script.

Thomas Ashley
VP, Policy